Amendments to the Claims

Please cancel claims 1-26 and enter new claims 26-37 per the following "claims listing":

Claims 1-25 (cancelled).

Claim 26 (new). A CCD imager architecture comprising:

a plurality of banks of photo-sensing pixels arranged in a matrix of rows and columns, the photo-sensing pixels configured to record data collectively representative of an image;

a plurality of horizontal CCD (HCCD) arrays comprising information-transferring cells, each HCCD array being located adjacent a corresponding bank of photo-sensing pixels, and each information-transferring cell corresponding to a respective column of photo-sensing pixels;

a controller and a clock, the controller configured to operate the clock to control transfer of the data from the photo-sensing pixels to the information-transferring cells, and from the information-transferring cells to a charge amplifier; and

wherein the controller is configured to operate in a sampling mode and a non-sampling mode, and:

when in the non-sampling mode, to sequentially transfer all of the data in the column of photo-sensing pixels into the corresponding information-transferring cell in the respective HCCD; and

when in the sampling mode, to transfer data from only one of the photo-sensing pixels from selected ones of the columns of photo-sensing pixels into the corresponding information-transferring cell in the respective HCCD.

Claim 27 (new). The CCD imager architecture of claim 26, and wherein, in the sampling mode, the controller is configured to transfer into the HCCD array, from the selected columns, only the data from the photo-sensing pixels that are adjacent to the HCCD array.

Claim 28 (new). The CCD imager architecture of claim 26, and wherein:

the selected columns in each bank are identifiable by a number of selected columns; and

in the sampling mode, the number of selected columns decreases for each bank as a function of a distance from a selected point in the imager.

Claim 29 (new). The CCD imager architecture of claim 26, and wherein the selected columns are not adjacent to one another.

Claim 30 (new). A digital camera comprising a CCD imager architecture according to claim 26.

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Claim 31 (new). A CCD imager architecture comprising:

a plurality of banks of photo-sensing pixels arranged in a matrix of rows and columns, the photo-sensing pixels configured to record data collectively representative of an image;

a plurality of horizontal CCD (HCCD) arrays comprising information-transferring cells, each HCCD array being located adjacent a corresponding bank of photo-sensing pixels, and each information-transferring cell corresponding to a respective column of photo-sensing pixels;

a controller and a clock, the controller configured to operate the clock to control transfer of the data from the photo-sensing pixels to the information-transferring cells, and from the information-transferring cells to a charge amplifier; and

wherein the controller is configured to operate in a sampling mode and a non-sampling mode, and:

when in the non-sampling mode, to sequentially transfer all of the data in the column of photo-sensing pixels into the corresponding information-transferring cell in the respective HCCD; and

when in the sampling mode, to transfer data from less than all of the photo-sensing pixels from selected ones of the columns of photo-sensing pixels within a selected bank into the corresponding information-transferring cell in the respective HCCD, and wherein the selected ones of the columns of photo-sensing pixels in the selected bank comprise less than all of the columns in the bank.

Claim 32 (new). A digital camera comprising a CCD imager architecture according to claim 31.

Claim 33 (new). A method of operating a CCD imager architecture, the CCD imager architecture comprising a plurality of banks of photo-sensing pixels arranged in a matrix of rows and columns, the photo-sensing pixels configured to record data collectively representative of an image, the CCD imager architecture further comprising a plurality of horizontal CCD (HCCD) arrays comprising information-transferring cells, each HCCD array being located adjacent a corresponding bank of photo-sensing pixels, and each information-transferring cell corresponding to a respective column of photo-sensing pixels, the method comprising:

in a non-sampling mode, sequentially transferring all of the data in the column of photo-sensing pixels into the corresponding information-transferring cell in the respective HCCD array; and

in a sampling mode, transferring data from only one of the photo-sensing pixels in selected columns of photo-sensing pixels into the corresponding information-transferring cell in the respective HCCD.

Claim 34 (new). The method of claim 33, and wherein, in the sampling mode, only the data from the photo-sensing pixels, from the selected columns, that are adjacent to the HCCD array are transferred into the HCCD array.

Claim 35 (new). The method of claim 33, and wherein:

the selected columns in each bank are identifiable by a number of selected columns; and

in the sampling mode, the number of selected columns decreases for each bank as a function of a distance from a selected point in the imager.

Claim 36 (new). The method of claim 33, and wherein the selected columns are not adjacent to one another.

Claim 37 (new). A method of operating a CCD imager architecture, the CCD imager architecture comprising a plurality of banks of photo-sensing pixels arranged in a matrix of rows and columns, the photo-sensing pixels configured to record data collectively representative of an image, the CCD imager architecture further comprising a plurality of horizontal CCD (HCCD) arrays comprising information-transferring cells, each HCCD array being located adjacent a corresponding bank of photo-sensing pixels, and each information-transferring cell corresponding to a respective column of photo-sensing pixels, the method comprising:

in a non-sampling mode, sequentially transferring all of the data in the column of photo-sensing pixels into the corresponding information-transferring cell in the respective HCCD array; and

in a sampling mode, transferring data from less than all of the photo-sensing pixels from selected ones of the columns of photo-sensing pixels within a selected bank into the corresponding information-transferring cell in the respective HCCD, and wherein the selected ones of the columns of photo-sensing pixels in the selected bank comprise less than all of the columns in the bank.

(End of "Claims Listing")

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